

REMARKS

Claims 1 and 2 are pending.

(a) In the present Amendment, claims 1 and 2 are amended for clarification purposes.

For example, claim 1 is amended to remove the recitation directed to impact strength.

This recitation was added in the Amendment filed August 21, 2007.

Claim 2 is amended to be in independent form and to incorporate the recitation of claim 1 directed to the distortion temperature and density.

No new matter is added, and entry of the Amendment is respectfully requested.

(b) Referring to paragraph no. 4 at pages 2-3 of the Office Action, claims 1 and 2 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement.

Without acquiescence in the merits of the rejection, the amendment to claim 1 renders the present rejection moot. Withdrawal of the rejection is respectfully requested.

(c) Referring to paragraph no. 5 at pages 3-4 of the Office Action, claim 1 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,573,340 ("Khemani") in view of the full English-language translation of JP 01-234434 ("Sonoo").

Applicants traverse and respectfully request the Examiner to reconsider.

The presently claimed invention relates to a biodegradable molded article mainly containing a polylactic acid. The molded article is produced by injection-molding and crystallizing and includes both glass fiber and hollow glass balloon which has been surface treated with a coupling agent. Further, the molded article according to the present claims has a heat resistance of a heat distortion temperature of at least 80 °C and a light weight as indicated by having a density of up to 1.2 g/cm³.

In Khemani, the polylactic acid has a glass transition temperature of 50-60 °C and is a stiff or hard biodegradable polymer. A film having improved elongation and excellent dead-fold properties, which are objects of the Khemani disclosure, cannot be obtained from a composition that does not include a soft biopolymer with a glass transition temperature of -10 °C or less. Accordingly, Khemani teaches away from resin molded articles that mainly include polylactic acids.

Indeed, the Examiner has not articulated an adequate rationale as to what reason one of ordinary skill in the art would have had to modify the teachings of Khemani to arrive at the resin molded article of present claims.

In addition, one of ordinary skill in the art in possession of the teachings of Khemani would have understood that the composition requires “at least one particulate filler,” thereby obtaining a film having excellent dead-fold properties. See, e.g., claim 1 of Khemani. In contrast, claim 1 of the present application is an injection-molded article having a light weight, as indicated by the recited density of up to 1.2 g/cm³. If the disclosure of Sonoo is combined with Khemani, a resultant composition would necessarily include the particulate fillers as constituent elements. Further, if the glass fiber and the hollow glass balloon surface treated with the coupling agent were combined in addition to the above, the density of the composition would not meet the recited density of the present claims of up to 1.2 g/cm³. As a result, the composition would be dense and would not be low weight.

The combination of Khemani and Sonoo would render the prior art unsatisfactory for its purpose.

Moreover, Sonoo is completely silent with respect to a biodegradable resin, such as a polylactic acid. Even if a polyester resin has a similar structure as that of a biodegradable resin,

the resin would have a large difference in heat resistance and mechanical strength. Similarly, Khemani discloses a film, which is not an injection-molded article. The film Khemani would have a different heat resistance and mechanical strength.

Accordingly, Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness.

In view of the above, reconsideration and withdrawal of the Section 103 rejection of claim 1 based on Khemani and Sonoo are respectfully requested.

(d) Referring to paragraph no. 6 at page 5 of the Office Action, claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sonoo in view of U.S. Patent No. 6,462,105 ("Kuroki").

Applicants traverse and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

Kuroki describes an aliphatic polyester film containing an inorganic filler as an anti-blocking agent and having excellent anti-blocking properties.

If the teaching of Kuroki was combined with Sonoo, one of ordinary skill in the art would have understood that the resultant composition would necessary include anti-blocking agents as an element of the composition. Further, if the glass fiber and the hollow glass balloon surface treated with the coupling agent were combined in addition to the above, the density of the composition would not meet the recited density of the present claims. As a result, the composition would be dense and would not be low weight.

The combination of Khemani and Sonoo would changes the principal modes of operation of the prior art.

Moreover, Sonoo is completely silent with respect to a biodegradable resin, such as a polylactic acid. Even if a polyester resin has a similar structure as that of a biodegradable resin, the resin would have a large different in heat resistance and mechanical strength. Similarly, Kuroki discloses a film, which is not an injection molded article. The film of Kuroki would have a different heat resistance and mechanical strength.

Accordingly, Applicants submit that the Examiner has failed to establish a *prima facie* case of obviousness.

In view of the above, reconsideration and withdrawal of the Section 103 rejection of claims 1 and 2 based on Sonoo and Kuroki are respectfully requested.

(e) With respect to both Section 103 rejections discussed above, Applicants further point out that the priority dates of all of the cited references are between 1988 and 2000, whereas the priority date of the present claimed invention is 2003. Applicants submit that if the present claimed invention would have been obvious to one of ordinary skill in the art as the Examiner presumes, the present claimed invention would have surely been disclosed sometime in the intervening years. Instead, since the present claimed invention was not disclosed during this time, Applicants submit that the composition and the effect of the present claimed invention was not obvious to one of ordinary skill in the art at the time of the invention.

(f) Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER


Michael G. Raucci
Registration No. 61,444

Date: February 13, 2008